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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/710,390      | 11/09/2000  | HORST GRAFE          | DT-3734             | 5453             |

30377 7590 11/21/2005

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| EXAMINER |
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PRONE, JASON D

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3724

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/710,390

Applicant(s)

GRAFE ET AL.

Examiner

Jason Prone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sieger (2,076,969) in view of Sieger (2,588,581), Martin (3,037,396), and Sato et al. (5,207,138). '969 discloses the invention including an upper blade support formed as a beam bridge having a diameter (4<sup>c</sup>) carrying a first blade (4<sup>a</sup>) and having a shaft stub on each of opposite longitudinal sides (Fig. 2), a lower blade drum having a diameter (4<sup>d</sup>) and carrying a second blade (4<sup>b</sup>), a means for permanently rotationally connecting the beam bridge with the lower drum (Pg. 1 Column 2 Lines 48-51) and having two synchronization tooth gears fixedly connected with the beam bridge and the blade drum, respectively, and having different pitch circle diameters corresponding roughly to diameters of respective blades (Fig. 1). '969 further discloses the first and second blades cooperating with each other in a predetermined cutting position of the beam bridge and the lower blade drum for cutting the rolled strip (Figs. 5-7), roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second lower blade and for lowering the strip before passing of the first upper blade through the blade gap (Roller means 19, 17, 16, 26, 25, 27, 29, 24, and 31 is connected to an adjusting means 23 which is synchronized to move the roller to lift the strip before

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passing of the lower blade and to lower the strip {Figs 5 and 6} before passing of the upper blade {Pg. 2 Column 2 Lines 50-62}. The roller means will accomplish this as the upper blade will passing a cutting zone while the roller is lowered {as shown to be slightly after the position in fig. 1} and will be raised while the lower blade is in a cutting zone {during a cutting action}}, and a number of x-revolutions of the beam bridge corresponds to a number y-revolutions of the blade drum so that the beam bridge and the blade drum are brought into the cutting position after different but finite number of the x-revolutions and y-revolutions of the beam bridge and the blade drum (Figs. 5-7).

However, '969 fails to disclose the upper blade support has a relatively large diameter and the lower blade drum has a comparatively small diameter, two pinch-roller sets located in front of and behind the beam bridge and the blade drum, respectively, for advancing the rolled strip under longitudinal tensioning through a gap between the beam bridge and the blade drum, the tooth gears are substantially backlash-free wherein in order to at least minimize the backlash, the tooth gear associated with the blade drum is divided in two gear portions, and the shear further comprises bolt means for securing the two gear portions in a predetermined angular position with respect to each other.

'581 teaches an upper blade support that has a relatively large diameter (17) and a lower blade drum that has a comparatively small diameter (16). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '969 with a larger upper blade support and a smaller lower blade drum, as taught by '581, to allow the smaller drum to be placed inside the apparatus, instead of

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the larger drum, because of its smaller size it could be easily replaced due to all the other components of the apparatus than a larger drum that would interfere with these components.

Sato et al. teaches two pinch-roller sets located in front of and behind the beam bridge and the blade drum, respectively, for advancing the rolled strip under longitudinal tensioning through a gap between the beam bridge and the blade drum (89). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '969 with two pinch-roller sets, as taught by Sato et al., to tension the work piece to facilitate cutting.

Martin teaches that the tooth gears are substantially backlash-free wherein in order to at least minimize the backlash, the tooth gear associated with the blade drum is divided in two gear portions (29 and 30), and the shear further comprises bolt means for securing the two gear portions in a predetermined angular position with respect to each other (37). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '969 with backlash-free gear portions, as taught by Martin, to provide for a safer cutting apparatus.

### ***Response to Arguments***

3. Applicant's arguments filed 07 September 2005 have been fully considered but they are not persuasive. Regardless of the intended use, Sieger ('581) clearly teaches to Sieger ('969) that it is old and well known in the art to incorporate a larger drum (17) above a lower drum (16). The apparatus disclosed by Sieger ('969) would be perfectly capable of performing the cutting function if the lower drum was slightly smaller than the

upper drum. One motivating reason for shrinking the lower drum could be that it would be easier for a technician to repair/replace a smaller drum in the heart of the apparatus due to all the components compared to an upper region. The fact that a smaller item would be easier to be taken out of a compact area featuring numerous components is old and well known. Also, in Sieger ('969), the shape of the drum has to do with the "engaging the strip during a small portion of the revolution". A lower drum, slightly smaller than the upper drum, of the same shape would still perform the intended use of the apparatus. Sieger ('581) is not modifying the Sieger ('969) reference to incorporate the exact drums as shown in Sieger ('581) only the idea that it is old and well know to incorporate a larger upper drum and smaller lower drum. Sieger ('969) clearly discloses a roller means for lifting/lowering the strip. Using Figure 6, the roller means comprises roller 19 and the entire lifting/lowering mechanism (17, 16, 26, 25, 27, 29, 24, 23, 31). The strip is lowered as shown in Figure 5 and the strip is lifted as shown in Figure 6.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571) 272-4513. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JP  
November 14, 2005

  
Timothy V. Eley  
Primary Examiner